

The diagram illustrates a cellular network 100, which is a system of communication devices. It consists of two hexagonal cells, each defined by dashed lines. The top cell contains a Base Station (BS) 102 with multiple antennas 104, and four User Terminals (UT) 105, 106, 107, and 108. The bottom cell contains a Base Station (BS) 111 with multiple antennas, and two User Terminals (UT) 109 and 110. The entire system is labeled 100.


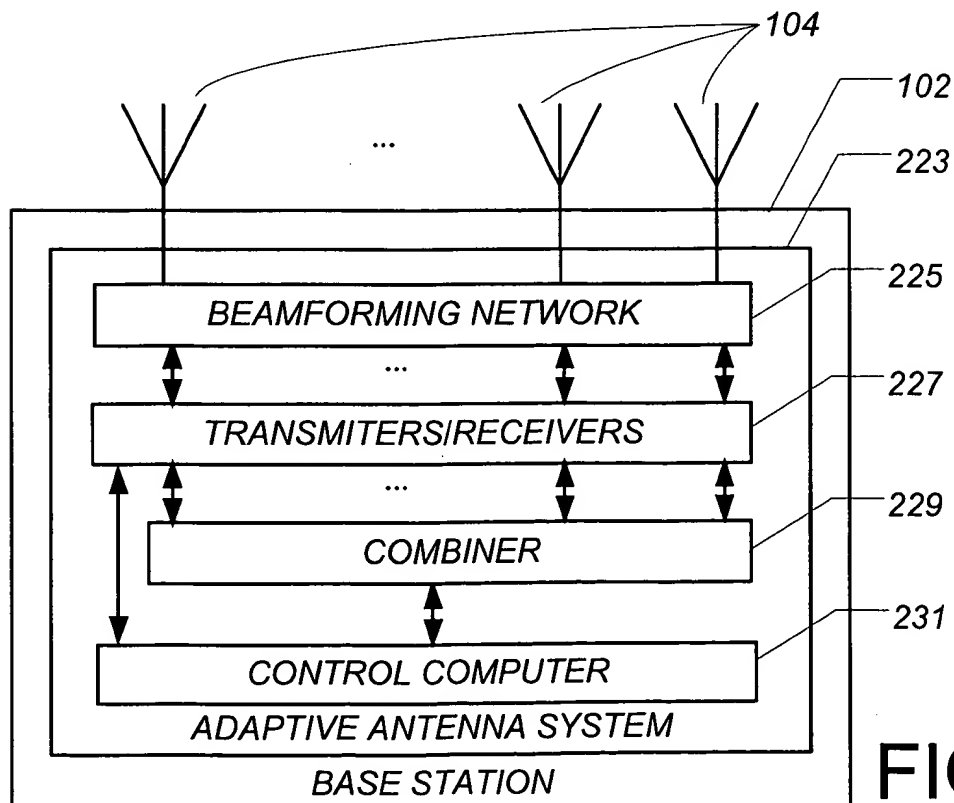
100 

FIG. 1 is a block diagram of a Base Station. The Base Station is shown as a large rectangle containing an Adaptive Antenna System. The Adaptive Antenna System is a sub-rectangle containing three main components: a CONTROL COMPUTER (210) at the bottom, a SPATIAL PROCESSOR (208) in the middle, and TRANSMITTERS/RECEIVERS (206) at the top. Bidirectional arrows connect the CONTROL COMPUTER (210) to the SPATIAL PROCESSOR (208), and the SPATIAL PROCESSOR (208) to the TRANSMITTERS/RECEIVERS (206). Above the TRANSMITTERS/RECEIVERS (206) are several antennas (102, 104). A curved line (104) indicates a signal path from the TRANSMITTERS/RECEIVERS (206) to the antennas. The entire Base Station is labeled with the text "BASE STATION" below it.



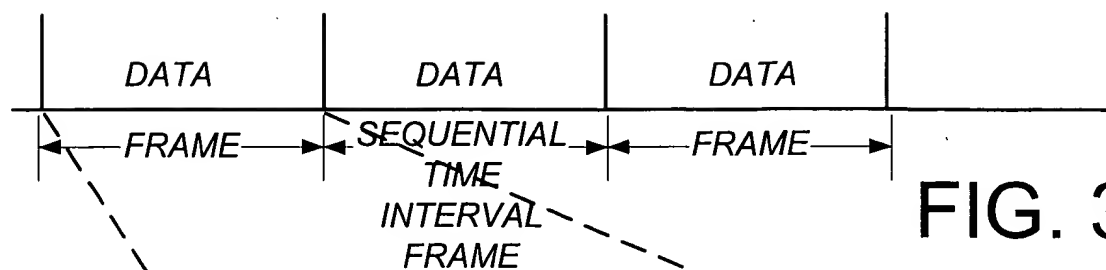


FIG. 3A

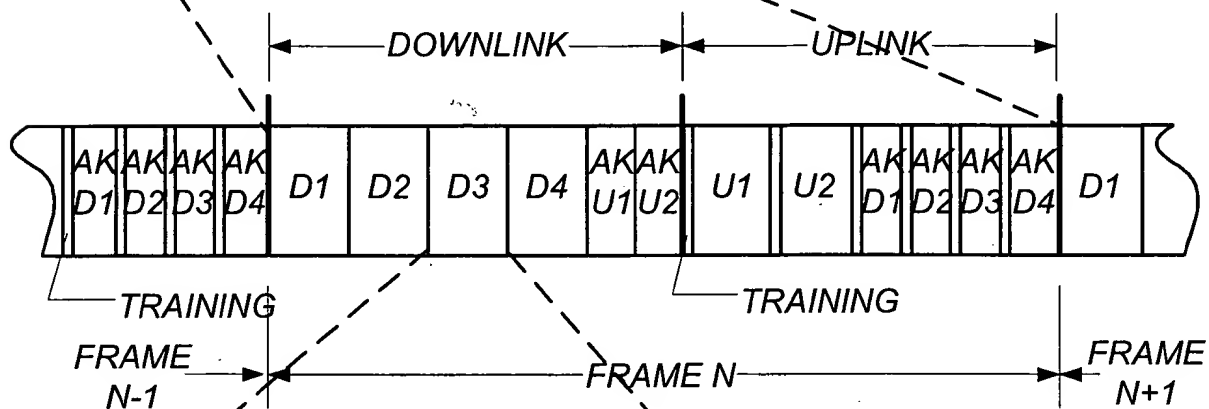


FIG. 3B



FIG. 3C

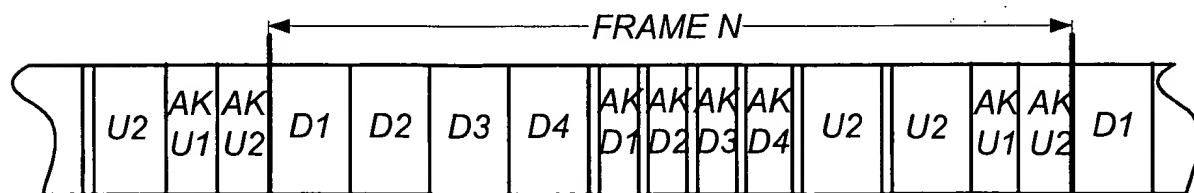


FIG. 3D

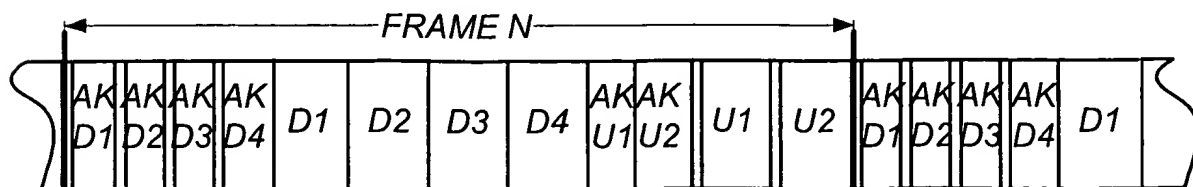
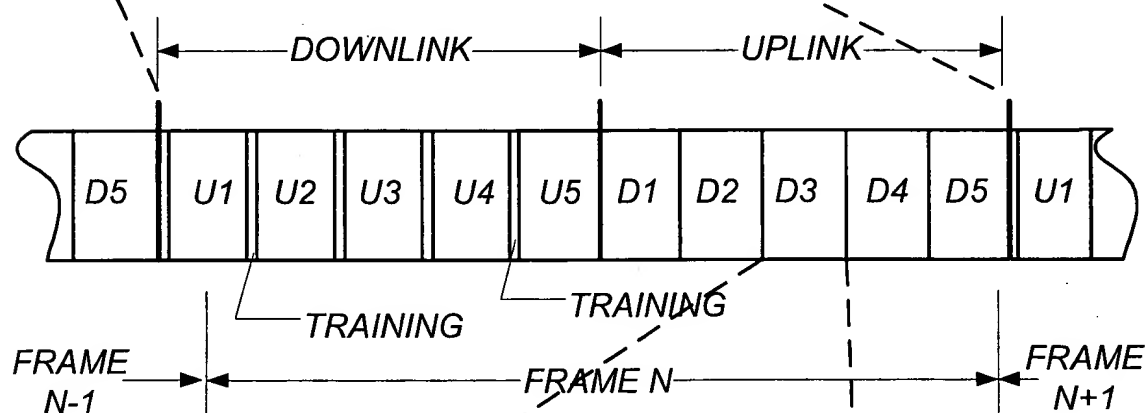


FIG. 3E

The diagram shows a horizontal timeline with three segments labeled *DATA*. Below the timeline, a double-headed arrow labeled *FRAME* spans the first *DATA* segment. Another double-headed arrow labeled *SEQUENTIAL TIME INTERVAL FRAME* spans the second *DATA* segment. Vertical lines mark the boundaries of the *DATA* segments. A dashed line extends from the start of the first *DATA* segment down and to the left.

FIG 4A



The diagram illustrates the timing of a frame-based communication system. It shows a horizontal timeline with several vertical markers. The first frame consists of a 'SIGNALLING SEGMENT' followed by a 'DATA TRANSFER SEGMENT'. This is followed by a 'SEQUENTIAL TIME INTERVAL' which contains a 'FRAME MARKER' and a 'DATA' segment. This pattern repeats for a second frame. The diagram is labeled 'FIG. 5A'.

